Washington State Department of Transportation

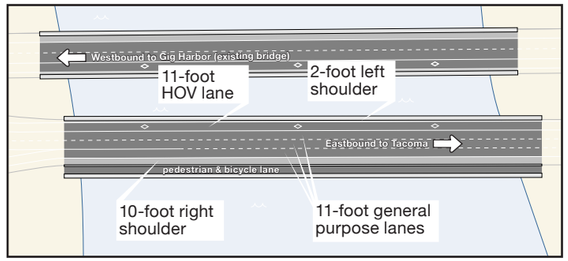
SR 16 – Tacoma Narrows Bridge

# Options – four lanes across the bridge, or three?

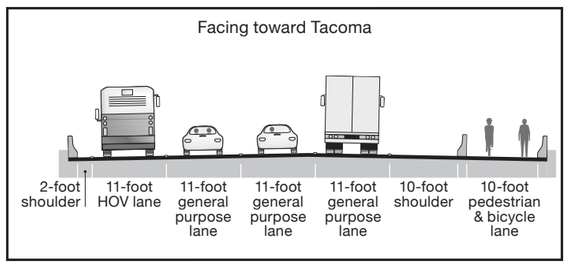
If WSDOT builds a new electronic toll on-ramp at 24th Street NW, the additional (4th) lane would be necessary to keep SR 16 traffic flowing and to keep drivers safe. Should the fourth lane end on the bridge or continue to Jackson Avenue?

## Option A

**4 lanes eastbound on new bridge**




Plan view of new bridge with 4 lanes eastbound




Cross-section of new bridge with 4 lanes eastbound

**Option A (four lane) considerations:**

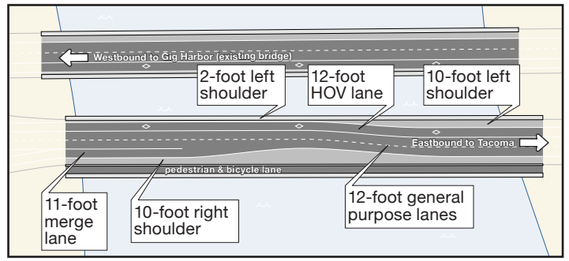
**Merge:** Drivers will have the full length of the bridge to merge into eastbound lanes.

**Congestion:** The fourth lane won't be necessary for congestion relief until after 2020.

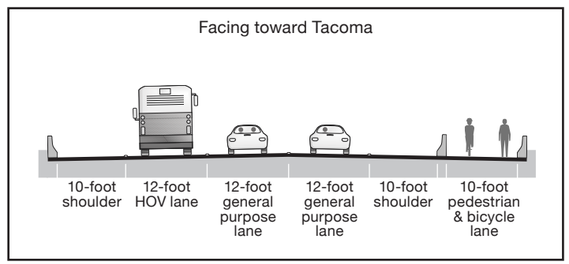
**Safety:** If there is a fourth lane there would be no left-hand shoulder across the bridge.

## Option B

**3 lanes eastbound on new bridge after merge lane**




Plan view of new bridge with 3 lanes eastbound




Cross-section of new bridge with 3 lanes eastbound

**Option B (three lane) considerations:**

**Merge:** Drivers would merge into three lanes as they come onto the bridge, with the merge lane ending at the west tower of the bridge.

**Congestion:** Traffic analysis shows that three lanes would enable a safe efficient merge without congestion from year of opening (2008) to 2020.

**Safety:** Beyond the merge, the east half of the bridge would have three standard width traffic lanes and shoulders. Wider lanes help drivers feel more comfortable. A shoulder on each side of the road provides a refuge for disabled vehicles and prevents backups.

### For more information or to share your comments:


WSDOT Tacoma Narrows Bridge Office
3214 50th Street Court NW, Suite 302
Gig Harbor, WA 98335

Contact email?
Phone: 1-877-7NARROW or (253) 534-4640
www.tacomanarrowsbridge.com



Washington State Department of Transportation

SR 16 – Tacoma Narrows Bridge


# 24th Street Electronic Toll On-ramp

May 2005

### Inside:



### On the back:



## What is the 24th Street Electronic Toll On-ramp?

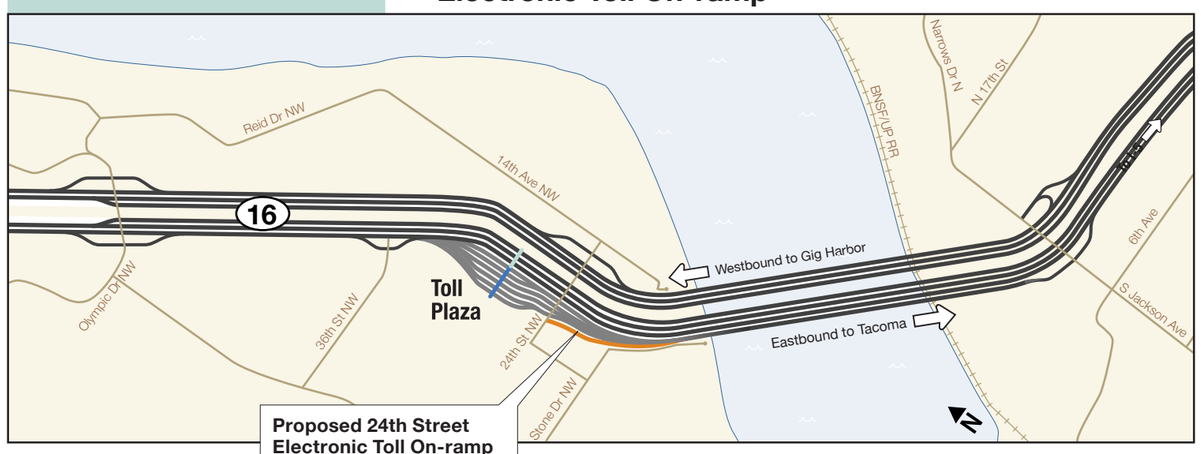
In response to public requests, WSDOT is considering building a new 24th Street Electronic Toll On-ramp to eastbound SR 16. WSDOT would include the on-ramp as part of the current Tacoma Narrows Bridge project. This would result in:

- A new eastbound electronic toll on-ramp at 24th Street NW.
- Striping for an additional (4th) lane onto the bridge to help eastbound cars from the manual toll plaza and 24th Street Electronic Toll On-ramp merge.

Two important questions WSDOT needs to consider before giving a thumbs-up to the new on-ramp include:

1. Will adding a new on-ramp at this location affect drivers' abilities to merge safely onto the eastbound highway at the new bridge?
2. How will the proposed 24th Street Electronic Toll On-ramp affect the traffic flow on eastbound SR 16?

## Location of proposed 24th Street Electronic Toll On-ramp

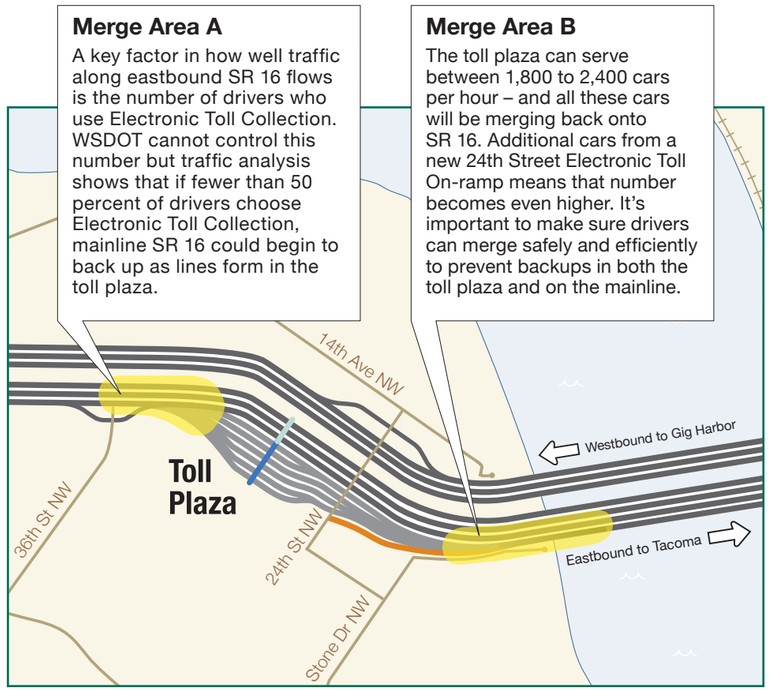


Washington State Department of Transportation

SR 16 – Tacoma Narrows Bridge

# How would WSDOT make the 24th Street Electronic Toll On-ramp safe and efficient?

## Two merge areas affect traffic flow on the mainline.




## When would this ramp happen?

**2004 — SPRING 2005**

» Study how the on-ramp would affect eastbound SR 16, neighborhood and toll plaza traffic.

**SPRING — SUMMER 2005**

» Seek approval for narrowing of lane and shoulder widths on the new Narrows Bridge to make room for a fourth lane.

» Study several environmental factors such as air quality and traffic noise impacts.

» Conduct final design for ramp.

**FALL 2005**

» Complete an environmental report.

» Make two decisions:

1. "Build" (the ramp) or "No Build"?
2. Three lanes or four lanes across the bridge?

» Negotiate Change Order with design-build firm for ramp design and construction.

**SUMMER 2006**

» Build the ramp.

**APRIL 2007**

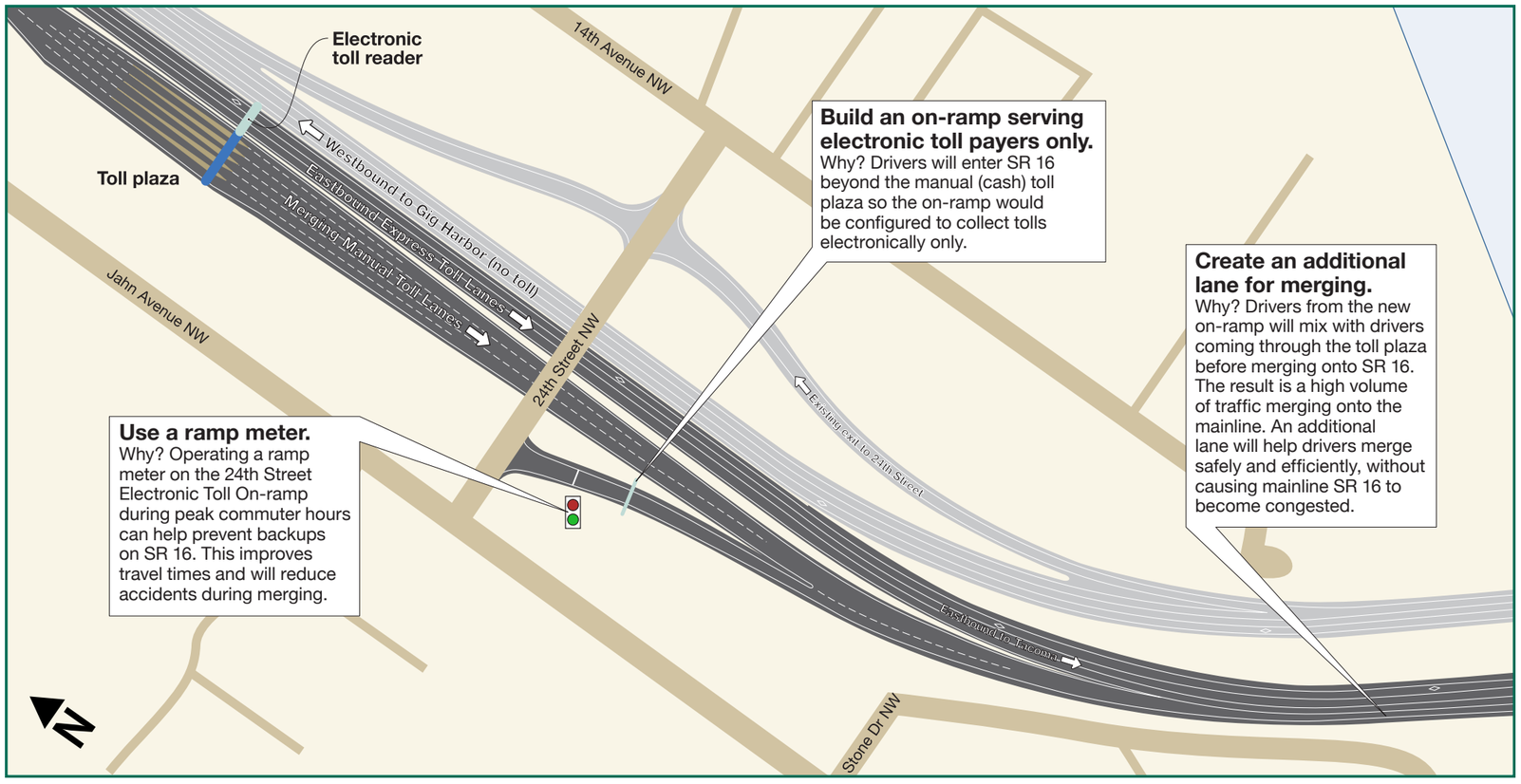
» Open the ramp as the new bridge opens.

## How would the new on-ramp affect the traffic flow on eastbound SR 16?

The 24th Street Electronic Toll On-ramp would affect traffic flows on eastbound SR 16. A ramp meter and merge lane can effectively manage traffic to prevent backups.

**A ramp meter**
Traffic flow benefits: Operating a ramp meter on the on-ramp at 24th Street during peak commuter hours would help prevent backups in the manual toll plaza and mainline SR 16 by managing the merge.

**An additional lane for merging**
Traffic flow benefits: Even when traffic is light, drivers on the mainline must often slow down to allow new cars to merge. By providing drivers from the toll plaza and 24th Street Electronic Toll On-ramp their own lane onto the bridge, drivers will be better able to maintain speed and keep the flow of traffic smooth and even.




## Will adding this new on-ramp affect drivers' abilities to merge safely?

A key WSDOT priority is making sure the new on-ramp allows drivers to merge onto the bridge safely. WSDOT can make the merge safer by installing two key features on the new-on ramp:

**A ramp meter**
Safety benefits: By adding more cars into a short merge area, the risk of crashes can increase. WSDOT could time the ramp meter to take into account the volume of cars leaving the toll plaza which would help all drivers merge safely. Ramp meters in King County have reduced rear-end and sideswipe collisions by more than 30 percent.

**An additional lane for merging**
Safety benefits: Drivers from the new on-ramp would first merge with drivers coming through the toll plaza and then complete another merge onto SR 16. An additional lane would give drivers more time to merge safely.